CLAIMS

1. Method for semi-endless or endless rolling by casting a metal strand, especially a steel strand (1a), which is cut to length as required after solidification, wherein the cut lengths (20) of cast strand are fed into a roller hearth furnace (2) for heating and homogenizing at rolling temperature and are then fed at rolling temperature into a rolling mill (3) to be rolled out, and wherein the continuous casting is continued without interruption during the rolling operation, characterized by the fact that the casting rate (V_c) is reduced for a roll change in such a way that a sufficient buffer time for a roll change is maintained between the end of the rolling of the preceding multiple length (21) and the insertion of a new cut length (20) or multiple length (21) in the rolling mill.

2. Method in accordance with Claim 1, characterized by the fact that several coils (22) are produced from a multiple length (21).

3. Method in accordance with Claim 1 or Claim 2, characterized by the fact that the casting rate (V_c) is reduced as a function of the feed rate (V_w) of the rolling mill (3) and/or the roll-changing time, including the roll pass designing, and/or the buffer length of the roller hearth furnace (2) and/or the final rolled thickness after the strand has been cut to length.

4. Method in accordance with Claim 1, characterized by the fact that the buffer length (23) of the roller hearth furnace (2) is adjusted at least to one roller plane (24).

5. Method in accordance with any of Claims 1 to 4, characterized by the fact that the casting rate (V_c) is reduced by an amount greater than or equal to the amount given by the following formula:

$$\Delta V = V_w - \frac{1}{\Delta t / L + 1/V_w} (m/\min)$$

where

ΔV = the reduction of the casting rate

V_w = the feed rate of the rolling mill

Δt = the roll-changing time

L = the length of the roller hearth furnace.

6. Method in accordance with any of Claims 1 to 5, characterized by the fact that the final rolled thickness and/or the feed rate (V_w) of the rolling mill is increased between rolling campaigns within a casting sequence after the strand has been cut to length.

7. Method in accordance with Claim 6, characterized by the fact that a combination of adjustment of the casting rate (V_c) and adjustment of the final rolled thickness is used to optimize the production capacity.

8. Method in accordance with Claim 6 or Claim 7, characterized by the fact that the final rolled thickness is increased by a maximum factor of 2.5.

9. Method in accordance with Claim 6 or Claim 7, characterized by the fact that the final rolled thickness is increased by a maximum factor of 2, and the casting rate (V_c) is reduced to a minimum of 30%.

10. Method in accordance with any of Claims 1 to 9, characterized by the fact that after the strand has been cut to length, the casting rate (V_c) is reduced, and/or the feed rate (V_w) of the rolling mill (3) and/or the final rolled thickness is

increased; upon completion of rolling, the worn rolls (3a) of the rolling mill (3) are changed; and after the roll change has been completed, the casting rate (V_c) is increased to the feed rate (V_w) of the rolling mill (3).

11. Casting and rolling plant for semi-endless rolling or endless rolling of a cast metal or steel strand (1a), which can be cut to length as required in the solidified state, wherein the cut lengths (20) of cast strand can be held at a high temperature and heated to rolling temperature and homogenized in a roller hearth furnace (2) and can then be fed into a rolling mill (3), and wherein the continuous casting machine (1) casts continuously, characterized by the fact that a roller hearth furnace (2) with at least one roller plane (24) is installed between the continuous casting machine (1) and the rolling mill (3) and at its inlet (12a) and/or outlet (12b) has a shearing station (14), which is followed by a descaling system (15), which is followed by the rolling mill (3), which is followed by a cutting station (16), a cooling station (17), and coilers (18).

12. Casting and rolling plant in accordance with Claim 11, characterized by the fact that when there are at least two roller planes (24), swiveling roller conveyors (11, 13), each of which has a bending and/or straightening unit, are installed at the inlet (12a) and outlet (12b) of the roller hearth furnace (2).

13. Casting and rolling plant in accordance with Claim 11 or Claim 12, characterized by the fact that multiple lengths (21) can be fed at a single height level from the outlet (9) of the continuous casting machine (1) by the roller conveyor (11) of the roller hearth furnace (2) into the rolling mill (3).